

Abstract Submitted
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Performance of the PHENIX Forward Trigger Resistive Plate Chambers RAMSEY TOWELL, Abilene Christian University, PHENIX COLLABORATION — The PHENIX experiment at the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory studies polarized proton-proton collisions to learn more about the spin structure of the proton. PHENIX's data acquisition system is able to record several thousand collisions each second. However, millions of collisions occur every second. So a forward trigger is required to select rare events of interest. To study the sea quark contribution to the spin structure of the proton, the interesting events are single high transverse momentum muons. The muon trigger upgrade includes two sets of Resistive Plate Chambers (RPCs) in both muon arms. Run 12 was the first run that had all of the RPCs installed. Now that the run is over, the performance of the RPCs under data-taking conditions can be analyzed. Initial studies indicate that the chambers performed extremely well. However, there were some noisy and dead channels identified. This careful systematic analysis has assisted in locating those channels so that they can be repaired before the next RHIC run. Results of the analyzed data showing the noisy and dead channels will be presented.

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